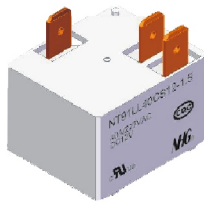



# NT91L



32.4 × 27.5 × 28.5



32.4 × 27.5 × 20.5

c  us E174722

## Features

- Single and double coils magnet latching relay available.
- Switching capacity up to 40A.
- Energy saving and environmental friendly product.

## Ordering Information

**NT91L 30 C S 12 - 1.5 D L**  
 1 2 3 4 5 6 7 8

1 Part number: NT91L

2 Load: 30A,40A/277VAC ,28VDC (Resistive load)  
 3000W 240VAC (Incandescent Lamp )  
 5A/280VAC (Electronic ballast)  
 2HP 250VAC (Motor load)

3 Contact arrangement: A:1A; B:1B; C:1C

4 Enclosure: S: Wash tight ; E: Flux proof

5 Coil rated voltage(V): 5,12,24,48

6 Coil power: 0.9:0.9W

7 Coil : NIL:Single coil; D: Double coils

8 High: H:Standard; L:Low profile type

## Contact Data

Contact Arrangement	1A(SPSTNO) 1B(SPSTNC) 1C(SPDT(B-M))
Contact Material	AgSnO <sub>2</sub>
Contact Rating(Resistive)	30A,40A/277VAC Incandescent Lamp :3000W 240VAC Electronic Ballast:5A/280VAC Motor Load:2HP 250VAC
Max. Switching Power	11000VA
Max. Switching Voltage	440VAC
Contact Resistance	≤ 20mΩ
Operation Life	Electrical: 5 × 10 <sup>4</sup> Mechanical: 1 × 10 <sup>6</sup>
	Max. Switching Current:40A Item 4.12 of IEC 61810-7 Item 4.30 of IEC 61810-7 Item 4.31 of IEC 61810-7

## Coil Parameter

1 Coil								
Dash numbers	Rated voltage VDC	Coil resistance Ω ±10%	Set/Reset voltage VDC (80%of rated voltage)	Operating voltage range VDC	Plus duration ms	Coil power W	Set time ms	Reset time ms
005-900	5	28	4	5~6				
012-900	12	160	9.6	12~14.4				
024-900	24	640	19.2	24~28.8	≥50	0.9	≤15	≤15
048-900	48	2560	38.4	48~57.6				

2 Coils								
Dash numbers	Rated voltage VDC	Coil resistance $\Omega \pm 10\%$	Set/Reset voltage VDC (<80%of rated voltage)	Operating voltage range VDC	Plus duration ms	Coil power W	Set time ms	Reset time ms
005-1800	5	2×14	4.0	5~6				
012-1800	12	2×80	9.6	12~14.4	$\geq 50$	2×1.8	$\leq 15$	$\leq 15$
024-1800	24	2×320	19.2	24~28.8				
048-1800	48	2×1280	38.4	48~57.6				

**CAUTION:** 1.When latching relays are installed in equipment, the latch and reset coil should not be powered simultaneously. Coil should not be pulsed with less than the nominal coil voltage and pulse width should be a minimum of three times the specified operate time of the relay. If these conditions are not followed, it is possible for the relay to in be the magnetically neutral position .  
2.Switching voltage is for test purpose only and are no to be used as design criteria.

### Safety Approvals

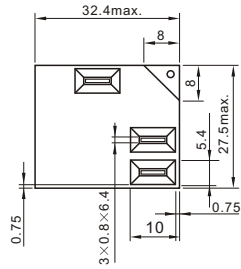
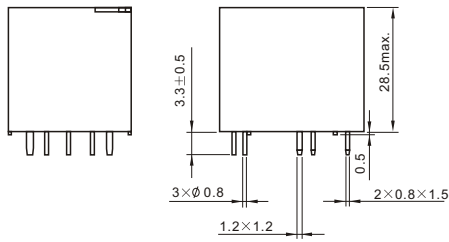
Safety approval	UL&CUR
Load	30A,40A/277VAC

### Characteristics

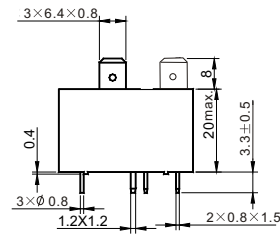
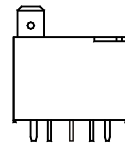
Insulation Resistance	1000M $\Omega$ min (at 500VDC)	Item 4.11 of IEC 61810-7
Dielectric Strength Between Contacts	50Hz 1500V 1min	Item 4.9 of IEC 61810-7
Between Contact and Coil	50Hz 2500V 1min	Item 4.9 of IEC 61810-7
Shock Resistance	196m/s <sup>2</sup> 11ms	Item 4.26 of IEC 61810-7
Vibration Resistance	10Hz~55Hz Double amplitude 1.5mm	Item 4.28 of IEC 61810-7
Terminals Strength	10N	Item 4.24 of IEC 61810-7
Ambient Temperature	-40°C~85°C	
Relative Humidity	5% to 85%	Item 4.16 of IEC 61810-7
Mass	31g (Low profile type) 35g	Item 4.7 of IEC 61810-7

## Dimensions

mm

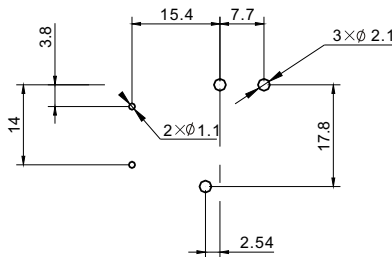


NT91L

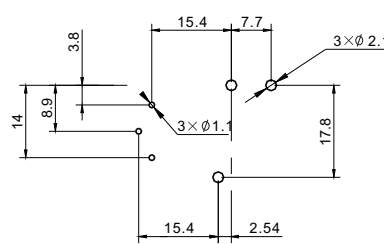


NT91LL

## Dimensions

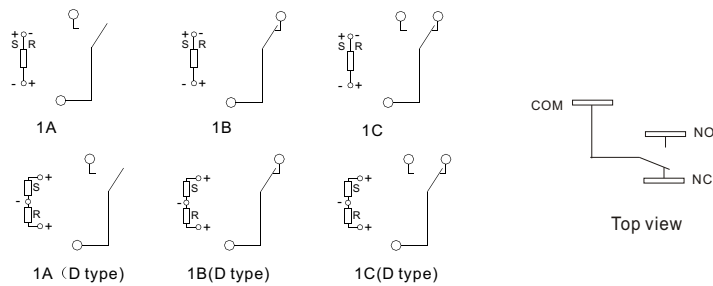


Single coil



Double coils

## Mounting (Bottom view)



S:Set R:Reset

## Wiring diagram(Bottom view)

- CAUTION: 1.Relays shall have plus(+) signs or “+” and “-” placed on the circuit diagram as shown.  
 2.In case of no tolerance shown in outline dimension: outline dimension  $\leq 1\text{mm}$ , tolerance should be  $\pm 0.2\text{mm}$ ; outline dimension  $>1\text{mm}$  and  $\leq 5\text{mm}$ , tolerance should be  $\pm 0.3\text{mm}$ ; outline dimension  $>5\text{mm}$ , tolerance should be  $\pm 0.4\text{mm}$ .